All analyses were performed with the SUDAAN software, designed for the analysis of complex sample designs such as the BRFSS survey. The percentages were weighted to reflect North Carolina adult population characteristics. To account for differences in age distributions between the three racial groups, age-adjusted percentages were also calculated using the 2000 United States standard population and five age groups (18-24, 25-34, 35-44, 45-64, and 65+).[20] Age-adjusted percentages were used for presenting the results because age-adjusted percentages are more suited for making risk comparisons across the three racial groups. The age-adjusted rate differences between American Indians and whites and between African Americans and whites were tested using a two-tailed t-test.

Logistic regression analysis was performed to generate adjusted odds ratios for each risk category to measure the association between being American Indian and the likelihood of having the chronic disease or risk factor, while controlling for age, sex, education level (high school or less, some college, and college graduate) and household income levels (less than $35,000, $35,000-$49,999, $50,000+, and unknown household income). Whites were used as the referent group.

Results

Demographic Characteristics of Sample

Table 1 includes weighted point estimates of demographic characteristics for American Indians, African Americans, and whites, along with 95 percent confidence intervals, based on the 2002-2003 BRFSS sample. Demographic characteristics of American Indians were very similar to the state's largest minority, African Americans, with respect to age, education level, household income, and employment status. The demographic charac-teristics of these two minority groups in the BRFSS sample differed substantially from whites. A higher percentage of whites were in older age groups, higher education level groups, and higher household income categories, compared to Americans Indians and African Americans. For example, only 10.4 percent of American Indians were ages 65 and older, compared to 18.2 percent of whites. Approximately 50 percent of American Indians were living in households with an annual income less than $25,000, compared to 27.1 percent of whites. One in five whites lived in a household with an income of more than $75,000, compared to approximately one in eighteen American Indians.

The distribution of employment status across racial groups was similar, with the exception of the "retired" and "unable to work" categories. The percentages of whites who reported being retired was twice as high as for American Indians, and the percentage of whites who reported being unable to work was half of that for American Indians. Also, a lower percentage of American Indians reported their occupational status as "homemaker" (4.7%), compared to whites (6.8%)

Health Indicators

Health indicators in this study were grouped into five major domains: chronic conditions, risk factors, preventive behavior, access to health care, and quality of life. **Table 2** includes unadjusted percentages and confidence intervals and age-adjusted percentages. Percentages for all North Carolinians (data not shown here) were only slightly different from the percentages for whites, because whites comprise more than 70 percent of the North Carolina adult population.

Table 3 shows odds ratios adjusted for gender, age, household income, and education level for all 20 indicators in the five domains. There are large age, education, and household income differences contributing to health disparities across the three racial groups. For example, if age-adjusted percentages for a health indicator are significantly different between American Indians and whites, but the adjusted odds ratio is not significantly different from 1.00, then the difference in the percentage is likely due to education and household income level